FIG. 1A

```
          1                                                    50
          |                                                    |
Human     .......... .......... .......... .......... ..........
Ahmad     .......... .......... ......MEST PSFLKGTPTW EKTAPENGIV
Chichon   .......... .......... ......MEST PSFLKGTPTW EKTAPENGIV
Rat       MGLRSSCFVL TLQDPPLGEP HEGRRVMESM PSFLKDTPAW EKTAPVNGIV
Mouse     .......... .......... ......MESM PSFLKDTPAW EKTAPVNGIV

          51                                                   100
          |                                                    |
Human     .......... .......... .......... .......... ..........
Ahmad     RQEPGSPPRD GLHHGPLCLG EPAPFWRGVL STPDSWLPPG FPQGPKDMLP
Cichon    RQEPGSPPRD GLHHGPLCLG EPAPFWRGVL STPDSWLPPG FPQGPKDMLP
Rat       GQEPGTSPQD GLHHGALCLG EPVPFWRGVL SAPDSWLPPG FLQGPKDTLS
Mouse     GQEPGTSPQD GLRHGALCLG EPAPFWRGVL STPDSWLPPG FLQGPKDTLS
```

FIG. 1B

```
          101                                                       150
          |                                                         |
Human     .......... .......... .......... .......... ..........
Ahmad     LVEGEGPQNG ERKVNWLGSK EGLRWKEAML THPLAFCGPA CPPRCGPLMP
Cichon    LVEGEGPQNG ERKVNWLGSK EGLRWKEAML THPLAFCGPA CPPRCGPLMP
Rat       VVEGEGSRNG ERKANWLGSK EGLRWKEAML AHPLAFCGPA CPPRYGPLIP
Mouse     LVEGEGPRNG ERKGSWLGGK EGLRWKEAML AHPLAFCGPA CPPRYGPLIP

          151                                                       200
          |                                                         |
Human     .......... .......... .......... .......... ..........
Ahmad     EHSGGHLKSD PVAFRPWHCP FLLETKILER APFWVPTCLP PYLVSGLPPE
Cichon    EHSGGHLKSD PVAFRPWHCP FLLETKILER APFWVPTCLP PYLVSGLPPE
Rat       EHSSGHPKSD PVAFRPLHCP FLLETKILER APFWVPTCLP PYLMSSLPPE
Mouse     EHSGGHPKSD PVAFRPLHCP FLLETKILER APFWVPTCLP PYLMSSLPPE
```

FIG. 1C

```
                201                                                                  250
                |                                                                    |
Human           .......... .......... .......... .FYYKDPSIP RLAKEPLAAA
Ahmad           HPCDWPLTPH PWVYSGGQPK VPSAFSLGSK GFYYKDPSIP RLAKEPLAAA
Cichon          HPCDWPLTPH PWVYSGGQPK VPSAFSLGSK GFYYKDPSIP RLAKEPLAAA
Rat             RSYDWPLAPS PWVYSGSQPK VPSAFSLGSK GFYHKDPNIL RPAKEPLAAS
Mouse           RPYDWPLAPN PWVYSGSQPK VPSAFGLGSK GFYHKDPNIL RPAKEPLA..

                251                                                                  300
                |                                                                    |
Human           EPGLFGLNSG GHLQRAGEAE RPSLHQRDGE MGAGRQQNPC PLFLGQPDTV
Ahmad           EPGLFGLNSG GHLQRAGEAE RPSLHQRDGE MGAGRQQNPC PLFLGQPDTV
Cichon          EPGLFGLNSG GHLQRAGEAE RPSLHQRDGE MGAGRQQNPC PLFLGQPDTV
Rat             ESGMLGLAPG GHLQQACDAE GPSLHQRDGE TGAGRQQNLC PVFLGYPDTV
Mouse           ESGMLGLAPG GHLQQACESE GPSLHQRDGE TGAGRQQNLC PVFLGYPDTV
```

FIG. 1D

```
          301                                                        350
          |                                                          |
Human     PWTSWPACPP GLVHTLGNVW AGPGDGNLGY QLGPPATPRC PSPEPPVTQR
Ahmad     PWTSWPACPP GLVHTLGNVW AGPGDGNLGY QLGPPATPRC PSPEPPVTQR
Cichon    PWTSWPACPP GLVHTLGNVW AGPGDGNLGY QLGPPATPRC PSPEPPVTQR
Rat       PRTPWPSCPP GLVHTLGNVW AGPGSNSFGY QLGPPVTPRC PSPGPPTPPG
Mouse     PRAPWPSCPP GLVHSLGNIW AGPGSNSLGY QLGPPATPRC PSPGPPTPPG

          351                                                        400
          |          *                                               |
Human     GCCSSYPPTK GGDLGPCGKC QEGLEGGASG ASEPSEEVNK ASGPRACPPS
Ahmad     GCCSSYPPTK GGDLGPCGKC QEGLEGGASG ASEPSEEVNK ASGPRACPPS
Cichon    GCCSSYPPTK GGGLGPCGKC QEGLEGGASG ASEPSEEVNK ASGPRACPPS
Rat       GCCSSHLPAR EGDPGPCRKC QDSPEGSSSG PGESSEERNK A.GSRASPPS
Mouse     GCCSSHLPAR EGDLGPCRKC QDSPEGGSSG PGESSEERNK A.DSRACPPS
```

FIG. 1E

```
          401                                                        450
          |                                                          |
Human     HHTKLKKTWL TRHSEQFECP RGCPEVEERP VARLRALKRA GSPEVQGAMG
Ahmad     HHTKLKKTWL TRHSEQFECP RGCPEVEERP VARLRALKRA GSPEVQGAMG
Cichon    HHTKLKKTWL TRHSEQFECP RGCPEVEERP VARLRALKRA GSPEVQGAMG
Rat       HHTKLKKTWL TRHSEQFECP GGCPGKGESP ATGLRALKRA GSPEVQGA.R
Mouse     HHTKLKKTWL TRHSEQFECP GGCSGKEESS ATGLRALKRA GSPEVQGASR

          451                                                        500
          |                          *                               |
Human     SPAPKRPPDP FPGTAEQGAG GWQEVRDTSI GNKDVDSGQH DEQKGPQDGQ
Ahmad     SPAPKRPPDP FPGTAEQGAG GLQEVRDTSI GNKDVDSGQH DEQKGPQDGQ
Cichon    SPAPKRPPDP FPGTAEQGAG GWQEVRDTSI GNKDVDSGQH DEQKGPQDGQ
Rat       GPAPKRPSHT FPGTGRQGAR AWQETPETST GSKA.EAQQQ EEQRGPRDGR
Mouse     GPAPKRPSHP FPGTGRQGAR AWQETPETII GSKA.EAEQQ EEQRGPRDGR
```

FIG. 1F

```
             501                                                550
             |               *                                    |
Human        ASLQDPGLQD IPCLLLPAKL AQCQSCAQAA GEGGGHACHS QQVRRSPLGG
Ahmad        ASLQDPGLQD IPCLALPAKL AQCQSCAQAA GEGGGHACHS QQVRRSPLGG
Cichon       ASLQDPGLQD IPCLALPAKL AQCQSCAQAA GEGGGHACHS QQVRRSPLGG
Rat          IRLRESRLED TSCQHHLAGV TQCPSCVQAA GEVEILTSHS QKSHKLPLEE
Mouse        IRLQESRLVD TSCQHHLAGV TQCQSCVQAA GEVGVLTGHS QKSRRSPLEE

             551                                                600
             |                                                *  |
Human        ELQQEEDTAT NSSSEEGPGS GPDSRLSTGL AKHLLSGLGD RLCRLLRRER
Ahmad        ELQQEEDTAT NSSSEEGPGS GPDSRLSTGL AKHLLSGLGD RLCRLLRGER
Cichon       ELQQEEDTAT NSSSEEGPGS GPDSRLSTGL AKHLLSGLGD RLCRLLRRER
Rat          KPL.EEDSCA .TSEEGGGS. SPEASINKGL AKHLLSGLGD RLCRLLRKER
Mouse        KQLEEEDSSA .TSEEGGGGP GPEASLNKGL AKHLLSGLGD RLCRLLRKER
```

FIG. 1G

```
                601                                                       650
                |          *          *                                   |
Human           EALAWAQREG QGPAVTGDSP GIPRCCSRCH HGLFNTHWRC PRCSHRLCVA
Ahmad           EALAWAQRES QGPAVTEDSP GIPRCCSRCH HGLFNTHWRC PRCSHRLCVA
Cichon          EALAWAQREG QGPAVTEDSP GIPRCCSRCH HGLFNTHWRC PRCSHRLCVA
Rat             EALAWAQREG QGPAMTEDSP GIPHCCSRCH HGLFNTHWRC SHCSHRLCVA
Mouse           EALAWAQREG QGPAMTEDSP GIPHCCSRCH HGLFNTHWRC SHCSHRLCVA

                651                                                       700
                |                                                         |
Human           CGRVAGTGRA REKAGFQEQS AEECTQEAGH AACSLMLTQF VSSQALAELS
Ahmad           CGRVAGTGRA REKAGFQEQS AEECTQEAGH AACSLMLTQF VSSQALAELS
Cichon          CGRVAGTGRA REKAGFQEQS AEECTQEAGH AACSLMLTQF VSSQALAELS
Rat             CGRIAGAGKN REKTGSREQR TDDCAQEAGH AACSLILTQF VSSQALAELS
Mouse           CGRIAGAGKN REKTGSQEQH TDDCAQEAGH AACSLILTQF VSSQALAELS
```

FIG. 1H

```
          701                                                       750
          |                                                         |
Human     TAMHQVWVKF DIRGHCPCQA DARVWAPGDA GQQKESTQKT PPTPQPSCNG
Ahmad     TAMHQVWVKF DIRGHCPCQA DARVWAPGDA GQQKESTQKT PPTPQPSCNG
Cichon    TAMHQVWVKF DIRGHCPCQA DARVWAPGDA GQQKESTQKT PPTPQPSCNG
Rat       TVMHQVWAKF DIRGHCFCQV DARVWAPGDG GQQKEPTEKT PPAPQLSCNG
Mouse     TVMHQVWAKF DIRGHCFCQV DARVWAPGDG GQQKEPTEKT PPTPQPSCNG

          751                                                       800
          |                                                         *
Human     DTHRTKSIKE ETPDSAETPA EDRAGRGPLP CPSLCELLAS TAVKLCLGHE
Ahmad     DTHRTKSIKE ETPDSAETPA EDRAGRGPLP CPSLCELLAS TAVKLCLGHD
Cichon    DTHRTKSIKE ETPDSAETPA EDRAGRGPLP CPSLCELLAS TAVKLCLGHE
Rat       DSNRTKDIKE ETPDSTESPA EDRAGRSPLP CPSLCELLAS TAVKLCLGHE
Mouse     DSNRTKDIKE ETPDSTESPA EDGAGRSPLP CPSLCELLAS TAVKLCLGHD
```

FIG. 1I

```
            801                                                850
            |                                                    |
Human       RIHMAFAPVT PALPSDDRIT NILDSIIAQV VERKIQEKAL GPGLRAGPGL
Ahmad       RIHMAFAPVT PALPSDDRIT NILDSIIAQV VERKIQEKAL GPGLRAGPGL
Cichon      RIHMAFAPVT PALPSDDRIT NILDSIIAQV VERKIQEKAL GPGLRAGPGL
Rat         RIHMAFAPVT PALPSDDRIT NILDSIIAQV VERKIQEKAL GPGLRAGSGL
Mouse       RIHMAFAPVT PALPSDDRIT NILDSIIAQV VERKIQEKAL GPGLRAGSGL

            851                                                900
            |                                                    |
Human       RKGLGLPLSP VRPRLPPPGA LLWLQEPQPC PRRGFHLFQE HWRQGQPVLV
Ahmad       RKGLGLPLSP VRPRLPPPGA LLWLQEPQPC PRRGFHLFQE HWRQGQPVLV
Cichon      RKGLGLPLSP VRPRLPPPGA LLWLQEPQPC PRRGFHLFQE HWRQGQPVLV
Rat         RKGLSLPLSP VRTQLSPPGA LLWLQEPR.. PKHGFRLFQE HWRQGQPVLV
Mouse       RKGLSLPLSP VRTRLSPPGA LLWLQEPR.. PKHGFHLFQE HWRQGQPVLV
```

FIG. 1J

```
          901                                                        950
          |                                   *                      |
Human     SGIQRTLQGN LWGTEALGAL GGQVQALSPL GPPQPSSLGS TTFWEGFSWP
Ahmad     SGIQRTLQGN LWGTEALGAL GGQVQALSPL APPQPSSLGS TTFWEGFSWP
Cichon    SGIQRTLQGN LWGTEALGAL GGQVQALSPL GPPQPSSLGS TTFWEGFSWP
Rat       SGIQKTLRLS LWGMEALGTL GGQVQTLTAL GPPQPTSLDS TAFWKGFSHP
Mouse     SGIQKTLRLS LWGMEALGTL GGQVQTLTAL GPPQPTNLDS TAFWEGFSHP

          951                                                       1000
          |                    *                                    |
Human     ELRPKSDEGS VLLLHRALGD EDTSRVENLA ASLPLPEYCA LHGKLNLASY
Ahmad     ELRPKSDEGS VLLLHRAFGD EDTSRVENLA ASLPLPEYCA LHGKLNLASY
Cichon    ELRPKSDEGS VLLLHRALGD EDTSRVENLA ASLPLPEYCA LHGKLNLASY
Rat       EARPKLDEGS VLLLHRPLGD KDESRVENLA SSLPLPEYCA HQGKLNLASY
Mouse     ETRPKLDEGS VLLLHRTLGD KDASRVQNLA SSLPLPEYCA HQGKLNLASY
```

FIG. 1K

```
          1001                                                      1050
          |                                                         *  |
Human     LPPGLALRPL EPQLWAAYGV SPHRGHLGTK NLCVEVADLV SILVHADTPL
Ahmad     LPPGLALRPL EPQLWAAYGV SPHRGHLGTK NLCVEVADLV SILVHARTPL
Cichon    LPPGLALRPL EPQLWAAYGV SPHRGHLGTK NLCVEVADLV SILVHADTPL
Rat       LPLGLTLHPL EPQLWAAYGV NSHRGHLGTK NLCVEVSDLI SILVHAEAQL
Mouse     LPLGLTLHPL EPQLWAAYGV NSHRGHLGTK NLCVEVSDLI SILVHAEAQL

          1051                                                      1100
          |   *                                                     |
Human     PAWHRAQKDF LSGLDGEGLW SPGSQVSTVW HVFRAQDAQR IRRFLQMVCP
Ahmad     PAWHEAQKDF LSGLDGEGLW SPGSQVSTVW HVFRAQDAQR IRRFLQMVCP
Cichon    PAWHRAQKDF LSGLDGEGLW SPGSQVSTVW HVFRAQDAQR IRRFLQMVCP
Rat       PPWYRAQKDF LSGLDGEGLW SPGSQTSTVW HVFRAQDAQR IRRFLQMVCP
Mouse     PPWYRAQKDF LSGLDGEGLW SPGSQTSTVW HVFRAQDAQR IRRFLQMVCP
```

FIG. 1L

```
          1101                                                        1150
          |                                                           |
Human     AGAGALEPGA PGSCYLDAGL RRRLREEWGV SCWTLLQAPG EAVLVPAGAP
Ahmad     AGAGALEPGA PGSCYLDAGL RRRLREEWGV SCWTLLQAPG EAVLVPAGAP
Cichon    AGAGALEPGA PGSCYLDAGL RRRLREEWGV SCWTLLQAPG EAVLVPAGAP
Rat       AGAGTLEPGA PGSCYLDSGL RRRLREEWGV SCWTLLQAPG EAVLVPAGAP
Mouse     AGAGTLEPGA PGSCYLDAGL RRRLREEWGV SCWTLLQAPG EAVLVPAGAP

          1151                                                        1200
          |                                                     *     |
Human     HQVQGLVSTV SVTQHFLSPE TSALSAQLCH QGPSLPPDCH LLYAQMDWAV
Ahmad     HQVQGLVSTV SVTQHFLSPE TSALSAQLCH QGASLPPDCH LLYAQMDWAV
Cichon    HQVQGLVSTV SVTQHFLSPE TSALSAQLCH QGPSLPPDCH LLYAQMDWAV
Rat       HQVQGLVSTI SVTQHFLSPE TSALSAQLCH QGASLPPDHR MLYAQMDRAV
Mouse     HQVQGLVSTI SVTQHFLSPE TSALSAQLYH QGASLPPDHR MLYAQMDRAV
```

FIG. 1M

```
          1201          1215
          |               |
Human     FQAVKVAVGT LQEAK
Ahmad     FQAVKVAVGT LQEAK
Cichon    FQAVKVAVGT LQEAK
Rat       FQAVKVAVGT LQEAK
Mouse     FQAVKAAVGA LQEAK
```